CLAIMS

What is claimed is:

1   Claim 1 is deleted.

2   Claim 2 is deleted.

3   Claim 3 is deleted.

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10 Claim 10 is deleted.

11 Claim 11 is deleted.
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18 <u>Claim 18 is deleted.</u>

19 (Currently amended) A method of learning and recognition of images using an ABM learning algorithm, an ABM recognition algorithm, an APN learning algorithm, and an APN recognition algorithm comprising:

    a) training a fully connected neural net with the ABM learning algorithm;

    b) classifying images with the ABM recognition algorithm via a stable distribution of an Markov chain;

    c) extending training of a fully connected neural net with the APN learning algorithm from a plurality of a binary neural nets to multi-valued neural nets; and

    d) extending the ABM recognition algorithm with APN recognition algorithm from a plurality of a binary neural nets to multi-valued neural nets wherein extending further comprises:

    b1) computing a matching score based on the ABM recognition algorithm and a distance between two images.

~~A computer-implemented process of claim 1 and 3 (search and classification), wherein the neural layer deploys the ABM or/and APN algorithm.~~

20 <u>Claim 20 is deleted</u>

21 <u>Claim 21 is deleted.</u>

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28 Claim 28 is deleted.